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SUB-COMMITTEE ON SAFETY OF NAVIGATION
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Agenda Item

Ship Strikes of Endangered Northern Right Whales
Submitted by the United States

1 Document NAV 44/x/xx presents a proposal by the U.S. Government for the consideration and approval by this Sub-committee of two mandatory ship reporting systems, one in northeastern and one in the southeastern United States. This information paper provides further background information on the importance and need to establish such systems to protect endangered large whale species, in particular the highly endangered northern right whales along the east coast of the United States and Canada.

2 Northern right whales are the most endangered of the world's large whales and ship collisions are the species' largest known source of human-related mortality. Over the past year, the United States has brought this issue to the attention of various bodies of the International Maritime Organization (IMO). The United States submitted an information paper on the issue to the Marine Environment Protection Committee (MEPC 40/Inf. 9) and set up an educational exhibit at NAV 43, MEPC 40, and MSC [69].

Nature of the Problem

3 Extensive studies of the northern right whale population in the western North Atlantic over the past 20 years indicate that it numbers no more than 350 whales and may number less than 300. The species was severely depleted by commercial whaling. The population has a very low reproductive rate of about 11 calves per year over the past 15 years.

4 The western North Atlantic right whale population occurs seasonally in five areas -- three off the eastern United States and two off southeastern Canada (see annex). The three areas off the United States have been designated as critical habitat for northern right whales under the U.S. Endangered Species Act. Each area lies in or adjacent to major vessel traffic corridors. The two seasonal habitats in Canada have been designated as whale sanctuaries by the Government of Canada, and one of those areas is crossed by vessel traffic lanes. The five areas shown in the annex are the only areas in the world where right whales are known to concentrate seasonally.

5 The impact of ship strikes on right whales has been well demonstrated. Massive wounds (*e.g.*, fractured skulls, severed tails, and large propeller slashes) found on right whale carcasses document that collisions between the whales and large ships have been responsible for a number of deaths. Between 1970 and 1996, 37% of all right whale deaths documented by whale biologists have been attributed to ship strikes. Between 1991 and 1996, when reporting and retrieval of carcasses floating offshore improved, 50% of the recorded deaths was attributed to ship strikes. These percentages are based either on examination of the carcasses or, in some cases, photographs. The actual number of deaths resulting from ship strikes, however, is almost

certainly higher. That is, most right whale deaths go unrecorded and some carcasses documented by photographs could not be examined for injuries not apparent in photographs. Most carcasses of whales struck by ships were recovered in or near major shipping lanes, which cross the five high use right whale habitats and the whales= coastal migratory corridor between the southeastern United States and northeastern United States and southeastern Canada.

6 Large scars or wounds attributed to ship propellers have been documented on the backs or flukes of 7% of the living right whales in the western North Atlantic. Given the very small size and low birth rate of the population, the National Marine Fisheries Service has determined that ship-related mortality and injury are significant obstacles to the species' recovery.

7 Behavioral characteristics and habitat preferences make right whales especially vulnerable to being hit by ships. As noted above, important seasonal habitats occur in or near major shipping lanes in the U.S. and Canadian waters. Also, right whales spend significant amounts of time at or near the surface engaged in behaviors that make them unresponsive to approaching ships. Such behaviors include "logging" (*i.e.*, resting or sleeping at the surface), courtship or mating, skim feeding (*i.e.*, swimming slowly at the surface as they filter zooplankton), and nursing. In addition, calves have limited diving capacities and spend most of their time at the surface.

Actions Being Taken to Reduce Ship Strikes of Northern Right Whales

8 The National Marine Fisheries Service has lead responsibility in the United States for restoring depleted populations of endangered whales, including right whales. To reduce the number of ship strikes, the National Marine Fisheries Service -- in cooperation with other government agencies, the maritime industry, the scientific community, and private groups--has initiated regional programs in the southeast and northeast United States to reduce the likelihood of ships hitting right whales in designated critical habitats during seasons when the whales are most abundant. The Canadian Department of Fisheries and Oceans and the Canadian Coast Guard also have taken steps to improve protection of right whales in preferred seasonal habitats in Canadian waters.

9 The southeast right whale critical habitat, a 5- to 15-mile wide strip along 240 miles of the Atlantic coast off Georgia and eastern Florida, is the population's only known calving grounds. Nursing females, calves, and juveniles occupy the area from early December to late March. Ships using several important commercial and military ports must cross the area. To reduce the risk of ship collisions, government agencies, area ports, port pilots, and whale biologists began work in 1993 to develop an early warning system and distribute related educational materials. The purpose of the program is to provide vessel operators passing through key right whale habitats with the latest data on where whales are located and practical advice on how to avoid hitting them.

10 Whale location data are obtained from aerial surveys flown daily in the southeast (weather permitting) from 1 December through 31 March and by opportunistic sighting reports provided voluntarily by transiting ships. Information on recent whale sighting locations is passed to ships in the area by the Coast Guard NAVTEX system, Coast Guard advisories broadcast over the radio, the Navy's regional fleet operations control center, direct radio contact between aerial

survey planes and passing ships, and information provided to vessel operators by area ports officials and port pilots.

11 The southeast early warning system provides vessel operators information on the season and area in which right whales are likely to occur, their endangered status, how to identify right whales, their vulnerability to ship strikes, and ongoing efforts to notify ships of recent right whale sightings. The materials also recommend voluntary actions that vessel operators should take to reduce the chances of striking a whale. For example, vessel operators are asked to post crew members to watch for whales when passing through the right whale critical habitat, take reasonable measures consistent with safe navigation to maneuver around or otherwise avoid whales seen or reported in a ship's path, and use minimum safe steerage speed and additional lookouts when passing within a specified distance of a right whale sighting location less than 48 hours old.

12 An early warning system program similar to that in the southeast was begun early in 1997 in the northeastern United States for the two seasonal right whale critical habitats off Massachusetts. The critical habitats are in Cape Cod Bay south of Boston and in the Great South Channel located 40-60 miles seaward of Cape Cod. The northeastern program is expected to be continued in future years during the peak whale seasons, which are from January to April in Cape Cod Bay and from April to June in the Great South Channel. Both are essential feeding areas for right whales.

13 The U.S. Coast Guard and the U.S. Navy have adopted several requirements for their vessels. For example, the Coast Guard requires a specially trained marine mammal lookout on all its vessels transiting designated critical habitats or within 20 nautical miles of shore. The Navy has committed to stationing an extra lookout - specifically trained in spotting and identifying marine mammals - on surface vessels present within the southeast critical habitat during the calving season. To the greatest extent possible, Coast Guard and Navy vessels avoid operating in the critical habitat area during the calving season, and operate at slow safe speeds in the critical habitat and whenever in the vicinity of a right whale. Both are members of the Southeast Right Whale Recovery Implementation Team and are involved in the Southeast Early Warning System (EWS). As part of the EWS, the Coast Guard notifies commercial vessels and citizens by use of NAVTEX and Broadcast Notice to Mariners of recommended actions that may be needed to avoid right whales. The Navy has instituted a centralized Geographic Information System that tracks all whale sightings reported by the EWS and notifies Navy vessels in, or about to enter, the right whale southeast critical habitats of recommended actions that may be needed to avoid right whales. Other measures adopted by the Navy for the calving season in the southeast include: prohibiting north-south transits through the critical habitat, requiring direct east-west transits when entering and leaving port, avoiding transits at night and in bad weather to the extent practicable, moving naval operations that require high vessel speed as far from the critical habitat as practicable. The Navy has produced a training video for ships' crews explaining the importance of avoiding right whales and how to identify them. The Coast Guard is also a member of the Northeast Right Whale Recovery Implementation Team and participates in stranding response networks in both regions. In the northeast, in addition to the requirements and actions described for the southeast, the Coast Guard also provides dedicated aircraft flights to help track right whale locations. The Coast Guard has developed a training course for Coast

Guard personnel, is developing information that will be included in the merchant mariners license exam, and has a training course for the boating public in the northeast United States.

14 While these efforts are helpful for reducing ship strikes of right whales, their effectiveness is limited. For example, early warning system sighting efforts are severely limited or impossible during bad weather and night, and even during good sighting conditions many whales may be missed by observers on planes and ships. To address this limitation, alternative technologies for detecting whale locations are being examined. Moreover, it is unclear whether information from the early warning system is reaching all area ship traffic and whether ship operators are following the precautionary advice. The United States is continuing to study the issue urgently to develop an effective, long-term strategy to address it. In this regard, a right whale ship strike workshop was recently held to bring together representatives of the shipping community, environmental groups, whale biologists, and government agencies for the purpose of discussing the issue and possible solutions.

Action requested of the Sub-committee

15 The Sub-committee is invited to note the foregoing information and consider it in conjunction with the proposal set forth in NAV 44/x/xx. Further information on the issue and related ongoing efforts is available from: Office of Protected Resources, National Marine Fisheries Service, NOAA, 1315 East-West Highway, Silver Spring, Maryland 20910 USA (tel. 202-713-2322).

16 The United States requests that Member Governments inform their shipping communities of this issue. Member Governments also are requested to provide any relevant information on collisions between ships and whales in U.S. waters to the U.S. National Marine Fisheries Service at the address set forth in paragraph 15 above.

Annex 1/Figure 1 Caption:

Figure 1. General location of high use right whale habitats off the eastern United States (SEUS = Southeast United States; GSC = Great South Channel; and MB = Massachusetts Bay, including Cape Cod Bay) and Canada (BOF = Bay of Fundy and NSS = Nova Scotian Shelf).